

*CLAIM AMENDMENTS*

1. (Currently Amended) A method of loading material into a dump body of a truck ~~whose using a loading bucket having a volumetric capacity that is approximately 1/4 or more than a volumetric capacity of the dump body, the dump body having sidewalls and a floor, where the sidewalls are spaced relatively wider than conventional dump bodies of similar volumetric capacity, and the loading bucket having a door at a lower end thereof that when free, swings open and allows the material contained in the loading bucket to drop into the dump body, the method comprising the steps of:~~

filling the loading bucket with an amount of earthen material, where the loading bucket has a volumetric capacity that is approximately 1/4 or more than a volumetric capacity of the dump body;

positioning the loading bucket over the dump body;

lowering the bucket to a position that (a) lowering the bucket into the body so that the bucket is approximately centered over a floor of the body ~~substantially minimizes a clearance between the floor of the dump body and the swinging door in its freed position so as to minimize splattering of the material dropped as it drops from the bucket into the dump body, thereby reducing the impact forces on the dump body caused by the dropping material, (b) allows the swinging door to clear the sidewalls of the dump body as it swings through an arc after it is freed, and (c) allows the material to be discharged substantially in the center of the dump body so as to produce a more balanced load on the dump body; and~~

freeing a the swinging door so as to open the bucket and allow the material held in the bucket to drop into the dump body, whereby the door swings open and clears both the sidewalls and the floor of the dump body while minimizing the height from which the material is dropped from the bucket, ~~which is unlike the conventional dump bodies wherein the swinging door either collides with one of the sidewalls of the conventional dump body, drops the material from the bucket substantially off the center of the body or drops the material from a substantially greater height.~~

2. (Currently Amended) A body of a vehicle for hauling material, the body made by the following process:

(a) determining a desired location for a load center of gravity on a chassis of the vehicle;

(b) determining a desired volumetric capacity for the body;

(c) ~~establishing an initial line for a floor, an initial line for a front wall of the body and an initial inside body width;~~

(cd) developing a three dimensional volumetric model of a load to be carried in the body on the chassis ~~defined by the initial floor line, the initial front wall line and the initial inside body width, including developing a three dimensional volumetric load model that includes corner voids, using data collected from an anticipated point of use with the three dimensional volumetric model of the hauled material having a volume and a volumetric model center of gravity located on the chassis;~~

(ed) adjusting a set of design parameters of the body until the load center of gravity for the three-dimensional volumetric model of the load model center of gravity is located proximate the desired location for the load center of gravity on the chassis and the volume of the three dimensional volumetric model is substantially similar to the desired volumetric capacity, including curving a rear edge of the floor to correspond with the rear corner voids in the three-dimensional volumetric model; and

(fe) producing the body in accordance with the set of design parameters.

3. (Previously Presented) A body of a haulage vehicle made by a process comprising:

(a) modeling a shape of a load of heaped material in three dimensions, where the shape of the load of heaped material is substantially conical;

(b) modeling a body to hold the substantially conically shaped load of heaped material, where a shape of the body is determined by predetermined parameters including a rear edge of a floor of the body that is curved to correspond with the conical shape of the load of heaped material; and

(c) producing the body according to values of the predetermined parameters resulting from modeling of the body.

4. (Previously Presented) The body of claim 3 where the predetermined parameters include one or more of (1) a position of the body's floor, (2) a position of the body's sidewalls (3) a length of the floor, (4) a height of sidewalls, (5) a distance between the respective sidewalls and (6) a position of the body front wall.

5. (Previously Presented) The body of claim 3 including adjusting the predetermined parameters to locate a location for a center of gravity of material held in the modeled body that approximates a lowest possible position for the center of gravity.

6. (Previously Presented) The body of claim 3 further including adjusting the predetermined parameters to allow material to be dropped into the modeled body from a lowest practical vertical elevation over a floor of the body.

7. (NEW) The body of claim 2 where the set of design parameters includes one or more of (1) a position of the body's floor, (2) a position of the body's sidewalls (3) a length of the floor, (4) a height of sidewalls, (5) a distance between the respective sidewalls and (6) a position of the body front wall.

8. (NEW) The body of claim 2 wherein the three dimensional volumetric model is substantially conical.

9. (NEW) The body of claim 2 including adjusting the set of design parameters such that the location of the load center of gravity for the three-dimensional volumetric model of the load approximates a lowest possible location while maintaining proximate alignment with the desired location for the load center of gravity.

10. (NEW) The body of claim 2 further including adjusting the set of design parameters to allow material to be dropped into the body from a lowest practical vertical elevation over a floor of the body.